

REMARKS

The Office Action dated November 3, 2004, has been received and carefully noted. The amendments made herein and the following remarks are submitted as a full and complete response thereto.

Claims 3 and 7-11 have been amended. Applicants submit that the amendments made herein are fully supported in the specification and the drawings as originally filed, and therefore no new matter has been added. Accordingly, claims 3 and 7-11 are pending in the present application and are respectfully submitted for consideration.

Formal Matters

Claim 8 was objected to because the claim contains a minor spelling error. Applicants submit that the term "said driver" has been amended to recite the correct term of --said divider--. Therefore, Applicants submit that the present application is in compliance with US patent practice.

Claims 3 and 7-11 Recite Patentable Subject Matter

35 U.S.C. § 102(e)

Claims 8 and 10-11 were rejected under 35 U.S.C. § 102(e) as being anticipated by Wang et al. (U.S. Patent No. 6,448,820, "Wang"). Applicants respectfully traverse the rejection and submit that each of these claims recites subject matter that is neither disclosed nor suggested by the cited prior art.

Claim 8 recites a delay time adjusting circuit receiving an input signal for outputting an output signal by adjusting a delay time of the input signal comprising, among other features, a dummy circuit configured to delay a signal from the divider by a

fixed delay time, and a phase comparison circuit configured to compare phases of the input signal and the signal from the dummy circuit.

Claim 10 recites a delay time adjusting method for receiving an input signal and outputting an output signal by adjusting a delay time of said input signal comprising, among other features, the steps of (c) delaying the signal obtained by the step (b) by a fixed delay time, and (d) comparing phases of the input signal and the signal obtained by the step (c).

It is respectfully submitted that the prior art fails to disclose or suggest at least the above-mentioned features of the Applicants' invention.

The Office Action characterized Wang as allegedly disclosing "a delay adjusting circuit in a phase locking loop shown in figure 5, ... [and a] delay circuit 533 outputs a signal to the divider 539. The divider 539 generates clock feedback to the phase comparator 516. The divider circuit divides the frequency of the clock output by an amount from about 1 to about 256 (column 7, lines 1-4). The phase comparator compares the phases of the input signal and the frequency divided feedback signal (figure 5 and column 7, lines 5-20)."

Applicants respectfully disagree with the Examiner's position, and submit that Wang fails to disclose or suggest each and every element recited in claims 8 and 10 of the present application. In particular, Wang merely discloses an apparatus having a phase frequency detector (PFD), a charge pump receiving an output of the PFD, a VCO (or delay cells) receiving an output of the charge pump to produce a clock output, and a divider feeding back the clock output of the PFD for comparison with a reference clock.

However, it is submitted that Wang does not teach at least a dummy circuit to delay an output of the divider by a fixed delay time, or a method thereof. Therefore, Applicants submit that Wang fails to disclose each and every element recited in claims 8 and 10 of the present application.

Moreover, to qualify as prior art under 35 U.S.C. §102, a single prior art reference must teach, i.e., identically describe, each feature of a rejected claim. As explained above, Wang fails to disclose or suggest each and every feature of claims 8 and 10. Accordingly, Applicants respectfully submit that claims 8 and 10 are not anticipated by nor rendered obvious by the disclosure of Wang. Therefore, Applicants respectfully submit that claims 8 and 10 are also allowable.

The rejection of claim 11 is discussed below.

Accordingly, Applicants respectfully request withdrawal of the rejection.

35 U.S.C. § 103(a)

Claims 3, 7 and 9 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Wang in view of Hanke, III et al. (U.S. Patent No. 5,376,848, "Hanke"). Applicants respectfully traverse the rejection and submit that each of these claims recites subject matter that is neither disclosed nor suggested by the cited prior art.

Claim 7 recites a delay time adjusting circuit receiving an input signal for outputting an output signal by adjusting a delay time of the input signal, comprising, among other features, a dummy circuit configured to delay a signal from the second divider by a fixed delay time, and a phase comparison circuit configured to compare phases of a signal from the first divider and a signal from said dummy circuit.

Claim 9 recites a delay time adjusting method for receiving an input signal and outputting an output signal by adjusting a delay time of the input signal, comprising among other features, the steps of (d) delaying a signal obtained by step (c) by a fixed delay time, and (e) comparing phases of signals obtained by steps (a) and (d).

Wang is discussed above.

Hanke is applied for allegedly teaching “a delay matching circuit shown in figures 5 and 6.” Applicants submit that Hanke does not overcome the above-described drawback of Wang as Hanke does not teach or suggest at least a dummy circuit that delays a signal from the second divider by a fixed delay time, and that a phase comparison circuit compares phases of the input signal and a signal from the dummy circuit.

As mentioned above, Wang fails to teach a dummy circuit. Furthermore, as acknowledged by the Examiner, Wang fails to teach two dividers having mutually different division rate, that is, a second divider having a higher division rate than a first divider which receives the input signal.

In order to establish a *prima facie* case of obviousness, each feature of a rejected claim must be taught or suggested by the applied art of record. See M.P.E.P. §2143.03 and In re Royka, 490 F.2d 981 (CCPA 1974). As explained above, Wang and Hanke, alone or in combination, do not teach or suggest each feature recited by pending Claims 7 and 9. Accordingly, for the above provided reasons, Applicants respectfully submit that pending Claims 7 and 9 are not rendered obvious under 35 U.S.C. § 103 by the teachings of Wang and Hanke, and are therefore allowable.

As claim 3 depends from claim 7, and claim 11 depends from claim 9, Applicants submit that each of these claims incorporates the patentable aspects therein, and are therefore allowable for at least the reasons set forth above with respect to the independent claims, as well as for the additional subject matter recited therein.

Under U.S. patent practice, the PTO has the burden under §103 to establish a *prima facie* case of obviousness. In re Fine, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). Both the case law of the Federal Circuit and the PTO itself have made clear that where a modification must be made to the prior art to reject or invalidate a claim under §103, there must be a showing of proper motivation to do so. The mere fact that a prior art reference could arguably be modified to meet the claim is insufficient to establish obviousness. The PTO can satisfy this burden only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references. Id. In order to establish obviousness, there must be a suggestion or motivation in the reference to do so. See also In re Gordon, 221 USPQ 1125, 1127 (Fed. Cir. 1984) (prior art could not be turned upside down without motivation to do so); In re Rouffet, 149 F.3d 1350 (Fed. Cir. 1998); In re Dembiczak, 175 F.3d 994 (Fed. Cir. 1999); In re Lee, 277 F.3d 1338 (Fed. Cir. 2002). The Office Action restates the advantages of the present invention to justify the combination of references. There is, however, nothing in the applied references to evidence the desirability of these advantages in the disclosed structure.

Applicants respectfully request withdrawal of the rejection.

Conclusion

In view of the above, Applicants respectfully submit that each of claims 3 and 7-11 recites subject matter that is neither disclosed nor suggested in the cited prior art. Applicants also submit that the subject matter is more than sufficient to render the claims non-obvious to a person of ordinary skill in the art, and therefore respectfully request that claims 3 and 7-11 be found allowable and that this application be passed to issue.

If for any reason, the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact the Applicants' undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper has not been timely filed, the Applicants respectfully petition for an appropriate extension of time. Any fees for such an extension, together with any additional fees that may be due with respect to this paper, may be charged to counsel's Deposit Account No. 01-2300 referencing Attorney Docket No. 100353-00037.

Respectfully submitted,



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